IN THE CLAIMS

Please replace any and all prior listings of the claims with the following listing.

1-11 (Canceled)

12.   (Previously presented) The method of claim 47, wherein said data structure for at least said first activity includes an activity structure that comprises an identity and a plurality of activity attributes.

13.   (Original) The method of claim 12, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

14.   (Previously presented) The method of claim 12, wherein at least one of said activity attributes has an attribute value.

15.   (Previously presented) The method of claim 13, wherein said item is an equipment, and wherein said time series data is linked to said device, which is a part of said equipment.

16.   (Previously presented) The method of claim 47, wherein said access request identifies a time varying parameter with a reference selected from the group consisting of: time based reference with respect to an interval of said first activity, direct reference to said first activity and indirect reference to said first activity.

17.   (Original) The method of claim 16, wherein said time based reference is with respect to a parameter that is independent of said process.

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18.   (Previously presented) The method of claim 16, wherein said direct reference directly refers to said first activity.

19.   (Previously presented) The method of claim 16, wherein said indirect reference includes a reference to an equipment used by said process during said first activity.

20.   (Canceled)

21.   (Previously presented) The computer apparatus of claim 48, wherein said data structure includes for at least said first activity an activity structure that comprises an identity and a plurality of activity attributes.

22.   (Previously presented) The computer apparatus of claim 21, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

23.   (Previously presented) The computer apparatus of claim 22, wherein at least one of said activity attributes has an attribute value.

24.   (Previously presented) The computer apparatus of claim 21, wherein said item is an equipment, and wherein said time series data is linked to said device, which is a part of said equipment.

25.   (Previously presented) The computer apparatus of claim 48, wherein said access request identifies said time varying parameter with a reference selected from the group consisting of: time based reference with respect to an interval of said first activity, direct reference to said first activity and indirect reference to said first activity.

26.   (Previously presented) The computer apparatus of claim 25, wherein said time based reference is with respect to a parameter that is independent of said process.

27.   (Previously presented) The computer apparatus of claim 25, wherein said direct reference directly refers to said first activity.

28.   (Previously presented) The computer apparatus of claim 25, wherein said indirect reference includes a reference to an equipment used by said process during said first activity.

29-37. (Canceled)

38.   (Previously presented) A computer apparatus for accessing time series data of a process, said apparatus comprising:

a processor and an activity framing program that responds to input data entered by a user to define a data structure,

wherein said activity framing program responds to said input data to define said data structure with a plurality of activities of said process, at least one attribute of a first one of said activities, a definition of said attribute and a tag for a device that produces at least a portion of said time series data that occurs during said first activity, and

wherein said framing program further responds to a request that identifies said first activity and said tag by using said data structure to access said time series data to retrieve said portion of said time series data.

39.   (Previously presented) The computer apparatus of claim 38, wherein said data structure is additionally defined by a value attribute that is linked to said device, and wherein said request additionally identifies said value attribute.

40.   (Previously presented) The computer apparatus of claim 38, wherein said data structure is additionally defined by an equipment of which said device is a part, and an attribute of said equipment that has a value that is linked to said device, and wherein said request identifies said first activity and said equipment attribute without identifying said device to retrieve said time series data that is produced by said device and that is framed by said first activity.

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41.   (Previously presented) The computer apparatus of claim 38, wherein said time series data is stored in a database.

42.   (Previously presented) The computer apparatus of claim 41, wherein said data structure is stored in one of said database and a separate memory.

43.   (Previously presented) A method for using a computer to access time series data of a process, said method comprising:

operating said computer with an activity framing program in response to input data entered by a user to define a data structure,

wherein said activity framing program responds to said input data to define said data structure with a plurality of activities of said process, at least one attribute of a first one of said activities, a definition of said attribute and a tag for a device that produces at least a portion of said time series data that occurs during said first activity, and

wherein said framing program further responds to a request that identifies said first activity and said tag by using said data structure to access said time series data to retrieve said portion of said time series data.

44.   (Previously presented) The method of claim 43, wherein said data structure is additionally defined by a value attribute that is linked to said device, and wherein said request additionally identifies said value attribute.

45.   (Previously presented) The method of claim 43, wherein said data structure is additionally defined by an equipment of which said device is a part, and an attribute of said equipment that has a value that is linked to said device, and wherein said request identifies said first activity and said equipment attribute without identifying said device to retrieve said time series data that is produced by said device and that is framed by said first activity.

46.   (Previously presented) A memory media for controlling a computer to process time series data of a process, said memory media comprising:

program instructions of an activity framing program for controlling a computer in response to input data entered by a user to define a data structure,

wherein said activity framing program responds to said input data to define said data structure with a plurality of activities of said process, at least one attribute of a first one of said activities, a definition of said attribute and a tag for a device that produces at least a portion of said time series data that occurs during said first activity, and

wherein said framing program further responds to a request that identifies said first activity and said tag to use said data structure to access said time series data to retrieve said portion of said time series data.

47.   (Previously presented) A method for accessing time series data of a process that is stored in a memory, said method comprising:

(a) generating an access request that is based on a data structure that comprises a plurality of activities, at least a first one of said activities framing a portion of said time series data produced by a device, wherein said access request identifies said first activity and said device; and

(b) in response to said access request, using said data structure to access said memory to retrieve said portion of said time series data.

48.   (Previously presented) A computer apparatus for accessing time series data that is stored in a memory, said computer apparatus comprising:

a processor and a framing program that generates an access request that is based on a data structure that comprises a plurality of activities, at least a first one of said activities framing a portion of said time series data produced by a device, wherein said access request identifies said first activity and said device; and

wherein said processor in response to said access request, uses said data structure to access said memory to retrieve said portion of said time series data

49. (Previously presented) A memory media for controlling a computer to access time series data of a process, said memory media comprising:

program instructions of an activity framing program for controlling a computer to generate an access request that is based on a data structure that comprises a plurality of activities, at least a first one of said activities framing a portion of said time series data produced by a device, wherein said access request identifies said first activity and said device; and

wherein said program instructions cause said computer to respond to said access request by using said data structure to access said memory to retrieve said portion of said time series data.

50. (New) The computer apparatus of claim 38, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.

51. (New) The method of claim 43, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.

52. (New) The memory device of claim 46, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.

53. (New) The method of claim 47, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.

54. (New) The computer apparatus of claim 48, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.

55. (New) The memory media of claim 49, wherein each of said activities is something that happens or is planned to happen over a period of time during said process.